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A method of airfoil shape completing

Il'inskii N., Kamalutdinov I., Mardanov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

An iteration method for airfoil shape completing using the pressure coefficient distribution specified on its sought part is proposed. The incompressible flow viscosity is taken into account by the boundary layer model, the iteration process is constructed with the use of G.Yu. Stepanov's idea. The solution algorithm is compiled and a set of numerical calculations is carried out. It is shown that the method proposed offers advantages over the well-known numerical-analytical scheme of solving mixed inverse boundary-value problems of aerohydrodynamics in the case of viscous incompressible fluid.

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